

**AMENDED CLAIMS**

[(received by the International Bureau on 17 August 2004 (17.08.04);  
original claim 1 replaced by amended claim 1; remaining claims unchanged (1 page)]

1. A composition used for diagnosing a lysosomal storage disorder ("LSD") comprising:

5 a capture antibody conjugated to a microsphere; and

the microsphere having at least a first fluorophore and a second fluorophore

wherein,

the capture antibody is capable of binding a target antigen and the target antigen comprises an LSD associated biomolecule.

- 10 2. The composition of claim 1, further comprising a detection antibody, wherein the detection antibody is capable of binding the target antigen, but is different from the capture antibody; and the detection antibody is conjugated to a detection label.

3. The composition of claim 1, wherein the target antigen is  $\alpha$ -iduronidase,  $\alpha$ -glucosidase, saposin C, LAMP-1, or LAMP-2.

- 15 4. The composition of claim 1, wherein the target antigen is  $\beta$ -glucosidase,  $\alpha$ -galactosidase A, iduronate-2-sulphatase, N-acetylgalactosamine 4-sulphatase, galactose 6-sulphatase, acid sphingomyelinase, galactocerebrosidase, arylsulphatase A, saposin B, heparan-N-sulphatase,  $\alpha$ -N-acetylglucosaminidase, acetylCoA: glucosamine N-acetyltransferase, N-acetylglucosamine 6-sulphatase,  $\beta$ -galactosidase,  $\beta$ -glucuronidase, aspartylglucosaminidase, acid lipase,  $\beta$ -hexosaminidase A,  $\beta$ -hexosaminidase B, GM2-activator, acid ceramidase,  $\alpha$ -L-fucosidase,  $\alpha$ -D-mannosidase,  $\beta$ -D-mannosidase, neuraminidase, phosphotransferase, phosphotransferase g-subunit, palmitoyl protein thioesterase, tripeptidyl peptidase I, cathepsin K,  $\alpha$ -galactosidase B, or sialic acid transporter.

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### STATEMENT UNDER ARTICLE 19 (1)

One aspect of the current invention is a composition that is utilized for diagnosing a lysosomal storage disorder ("LSD"). In a specific embodiment, a capture antibody conjugated to a microsphere having at least a first fluorophore and a second fluorophore is an improvement on the technology in AU26869/97. The AU26869/97 reference does not teach or suggest microspheres having any type of fluorophore.

The applicants have amended Claim 1 to include the phrase:

*"the microsphere having at least a first fluorophore and a second fluorophore."*